



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,481	10/20/2000	Joel E. Short	42253/	8652

826 7590 05/04/2005

ALSTON & BIRD LLP  
BANK OF AMERICA PLAZA  
101 SOUTH TRYON STREET, SUITE 4000  
CHARLOTTE, NC 28280-4000

EXAMINER

WANG, LIANG CHE A

ART UNIT PAPER NUMBER

2155

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/693,481

Applicant(s)

SHORT ET AL.

Examiner

Liang-che Alex Wang

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 6-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1, 3, 6-13 are presented for examination.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/28/2005 has been entered.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1, 3, 6-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 1 recites the limitation "may be" in line 11, renders the claim vague and indefinite. The word "may", which causes uncertainty of the claim limitation, therefore claim 1 is rejected.
6. All dependent claims are rejected to as having the same deficiencies as the claims they depend from.  

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Ayres, US Patent Number 6,738,371, hereinafter Ayres.
9. Referring to claim 1, Ayres has taught a method for dynamic control of data transfer by a subscriber during an on-going network session (Col 3 lines 25-31), comprising:
- a. receiving a data packet at a gateway device (Col 5 lines 1-2, router 20 corresponds to the gateway device);
  - b. identifying, at the gateway device (router 20), a subscriber (end user 24) associated with the data packet (Col 5 lines 1-10);
  - c. retrieving from memory a subscriber profile (QOS customer profile 74) that includes subscriber-selected bandwidth (Figure 3, Col 8 lines 33-35, 38-44);
  - d. determining if a transfer rate for data packet transmission should be adjusted based on the subscriber-selected bandwidth (Col 8 lines 33-37, rate adjustment is made based on info stored in the profile);
  - e. adjusting the transfer rate for data packet transmission based on outcome of the determination process (Col 9 lines 10-17);

- f. wherein the transfer rate for the data packet transmission may be adjusted at any time during the on-going network session based on adjustment of the subscriber-selected bandwidth during the on-going network session (abstract, lines 4-6, Col 3 lines 26-30, dynamically adjusting the rate of packets, Col 8 lines 33-37, 56-60, rate adjustment are made based on customer QOS profile).
10. Referring to claim 7, Ayres has further taught wherein the step of retrieving from memory a subscriber profile that includes subscriber-selected bandwidth (Figure 3, Col 8 lines 33-35, 38-44), further comprising retrieving from memory a subscriber profile that includes a first subscriber-selected bandwidth for information being sent to the network (Col 9 lines 2-9) and a second subscriber-selected bandwidth for information being retrieved from a network (Col 8 lines 38-54).

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres in views of Gulliford et al., US Patent Number 6,618,355, hereinafter Gulliford.

Ayres has taught an invention as described in claim 1, Ayres has taught the step of identifying, at the gateway device (router 20), a subscriber (end user 24) associated with the data packet (Col 5 lines 1-10);

Ayres does not explicitly teach the association of MAC address within the data packet.

However, Gulliford teaches a determination is made, when the switch receives a transmitted data packet, a physical address of a destination device (MAC address) is intended for a subscriber device (Col 12 lines 62-66.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the association of MAC address with the data packet of Gulliford in Ayres such that to have Ayres' system to identify at the gateway device the subscriber associated with the data packet by the MAC address within the data packet because both Ayres and Gulliford have taught packets communicating within a network.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having the MAC address would allow Ayres' system to be aware of the physical address of a destination device as taught by Gulliford (Col 12 lines 32-66.)

13. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres in view of Salkewicz, US Patent Number 6,609,153, hereinafter Salkewicz.

Ayres has taught an invention as described in claim 1, including retrieving a subscriber selected bandwidth (Col 8 lines 33-35, 38-44). Ayres has not taught where the information is retrieved from the Authentication, Authorization and Accounting (AAA) subscriber management interface.

However, Salkewicz has taught the use of AAA to retrieve access control and identify the subscribers (Col 15 lines 13-27.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Ayres such that to have information retrieved from an AAA subscriber management interface, because both Ayres and Salkewicz have taught packet communication with network devices.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having an AAA would allow a better security to be implemented in Fowler's system though the Authentication, Authorization and Accounting as taught by Salkewicz (Col 15 lines 13-27.)

14. Claim 8-11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres in view of Fowler, US Patent Number 5,793,978, hereinafter Fowler.
15. Referring to claim 8, Ayres has taught an invention as described in claim 1, and Ayres has taught the step of retrieving from memory a subscriber profile (QOS customer profile 74) that includes subscriber-selected bandwidth (Figure 3, Col 8 lines 33-35, 38-44) and the step of adjusting the transfer rate for data packet transmission based on outcome of the determination process (Col 9 lines 10-17); and Ayres has further taught the delay parameter (Col 6 lines 5-9).

Ayres has not explicitly taught the limitation of delay period.

However, Fowler has taught the limitation of delay period (Fowler, Col 1 lines 49-52, delay period corresponds to the period of time that message is held until the selected amount of bandwidth become available.)

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate the delay period of Fowler in Ayres such that to have

the step of determining a delay period for transmitting the packet, and the step of queuing the data packet for the delay period before transmitting the packet because both Ayres and Fowler have taught data packets in a communication network.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having the delay period for data packet transfer would give a relief to when a significant amount of packets are attempting to be broadcast or transmitted at the same time as taught by Fowler (Col 1 lines 28-40.)

16. Referring to claim 9, Ayres as modified has further taught wherein the step of determining a delay period further comprises determining a delay period based upon a byte size of the data packet (Fowler, Col 53-56, selected bandwidth is based on the packet bytes to be send in any one second period.)
17. Referring to claim 10, Ayres as modified has further taught wherein the step of determining a delay period further comprises determining a delay period based upon a byte size and a time lapse of a most recently transmitted data packet that was associated with the subscriber (Fowler, Col 1 lines 53-56, selected bandwidth is based on the packet bytes to be send in any one second period.)
18. Referring to claim 11, Ayres has taught about the delay period (Col 1 lines 48-52.) And it would have been obvious for a person with ordinary skill in the art to have the maximum delay period of 2 seconds, because a delay time could be set to a limit of any time interval including a maximum of 2 seconds.



Art Unit: 2155

19. Referring to claim 13, Ayres as modified has taught wherein the subscriber network session is a wireless network session (Fowler, Col 2 lines 63-67, broadcasting is known to be done either wirely or wirelessly.)
20. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ayres in views of Fowler, in further view of Barton, US Patent Number 6,310,886, hereinafter Barton. Ayres as modified has not taught, the step of queuing the data packet using a ring buffer. However, Barton has taught the use of ring buffer for queuing the data packet (Col 8 lines 1-3).

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to modify the teaching of Ayres as modified such that to have a ring buffer for queuing the data packet, because both Ayres as modified and Barton has taught packet communication in a network environment.

A person with ordinary skill in the art would have been motivated to make the modification to Ayres because having the ring buffer algorithm used for queuing packets to be sent through is well known and recognized by the practitioners skilled in the art as taught by Barton (Col 7 line 67- Col 8 line 3.)

### ***Response to Arguments***

21. Applicant's arguments with respect to claims 1, 3, 6-13, have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Art Unit: 2155

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).
23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T Alam can be reached on (571)272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Liang-che Alex Wang *lcw*  
April 27 2005

  
ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100